

REMARKS/ARGUMENT

This is intended as a full and complete response to the Final Office Action dated December 29, 2004, having a shortened statutory period for response set to expire on March 29, 2005. Please reconsider the claims pending in the application for reasons discussed below.

Claims 1-3 presently remain rejected under 35 USC § 102 in view of El-Sharkawi et al.

At the outset, Applicant wishes to express its thanks for the courtesies extended by the Examiner in the telephonic interview held on January 14, 2005. Applicant also wishes to acknowledge and appreciates the Examiner's indication, based on the discussions during the interview, that upon receipt of Applicant's written response that the rejection under 35 U.S.C. § 102 in light of El-Sharkawi would most likely be withdrawn and a new search undertaken.

As pointed out during the telephone call, inherent to AC response to inductive loads is the generation of VAR, for which when voltage and current are plotted as a function of time, voltage leads current. On the other hand, it is well known that in an AC circuit, voltage across a capacitor when similarly plotted as a function of time lags current, as the current must first flow to the capacitor to build up the charge. This property has long been taken advantage of in the prior art, by introducing capacitance to an inductive circuit to compensate for, i.e. cancel out, the effects of induced VAR.

In El-Sharkawi, the use of such capacitive compensation is relied upon, the invention an improvement over the earlier Williams reference, in which El-Sharkawi was a co-inventor, US 4,677,364 (see Col 2, lines 34-68 of the '356 patent). Thus, in El-Sharkawi, the VAR in each of the 3 source lines of the three phase power source is measured and calculations carried out to determine how many of the individual capacitors associated with each of three separate capacitor banks connected in parallel to the circuit are required. The solid state relays 114 of El-Sharkawi are used to connect and disconnect individual capacitors to the circuit, to either bring them on or

PATENT

Atty. Dkt. No. EWSH0002.C1

take them off line, the total amount of corrective capacitance a function of the number of capacitors on line at any one time.

El Sharkawi fails to anticipate the claimed invention. In El Sharkawi, the SSRs are connected between the capacitors and ground, i.e. in parallel to the source lines. In the instant invention, SSRs are positioned in series with the source line that is in-line with the power source. So located, the flow of power to the inductive load is actually interrupted when the SSRs are switched from the conducting to the non-conducting state. The VAR is measured during a period of time. This measured value is then used to determine how long a given SSR is to be maintained in the non-conductive state, before switching to the conductive state and the flow of power through the input line resumed. This is in contrast to El-Sharkawi where measured VAR is only used to determine the amount of capacitive compensation required. The flow of power through the line is never interrupted, only the number of capacitors added to the circuit adjusted.

In conclusion, the reference cited by the Examiner does not teach, show or suggest the invention as claimed.

Applicant respectfully submits that the claims, in their present form, are patentable over the prior art of record, that the current rejection be withdrawn and the claims be deemed in condition for allowance.

Respectfully submitted,



Lawrence Edelman
Registration No. 25,226
MOSER, PATTERSON & SHERIDAN, L.L.P.
3040 Post Oak Blvd. Suite 1500
Houston, TX 77056
Telephone: (650) 330-2310
Facsimile: (650) 330-2314
Attorney for Applicant(s)

Page 4

332994_1.DOC